

Remarks

The specification was objected to as failing to comply with 37 C.F.R. §1.74. Claim 14 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Claims 12 and 15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 to 7, 11 and 15 to 17 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 0 592 297. Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over EP 0 592 297 to Gerard (“Gerard”).

In this response, the specification and claims 1, 6, and 14 have been amended. Upon entry of the amendments, claims 1-7, 11 and 14-18 remain pending in this application.

Applicants respectfully request reconsideration and withdrawal of objections and rejections in view of the amendments and following remarks.

Objections to the Specification

The specification was objected to as failing to comply with 37 C.F.R. §1.74 because the detailed description at paragraphs [0024] to [0027] fails to describe the invention by referring to the drawings by figure numbers and reference numerals.

Applicants have amended paragraphs [0024] to [0027] to include specific references to the drawings using figure numbers and references numerals.

Withdrawal of the objections is respectfully requested.

Rejections under 35 U.S.C. §112, First Paragraph:

Claim 14 was rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement.

Claim 14 recites that the bearing of each joint is spherical. Applicants respectfully submit that the specification provides sufficient disclosure to enable a person of ordinary skill in the art to make and/or use the recited coupling having spherical bearings. For example, at paragraph [0009] the specification specifically states: “The joints may be equipped with spherical bearings.”

Applicants respectfully submit that the second sentence of paragraph, which describes an advantageous embodiment wherein at least one joint is equipped with a cylindrical bearing, does

not negate the first sentence. In other words, several embodiments are described in the invention, including one embodiment having spherical bearings and another embodiment having at least one joint with a cylindrical bearing. Characterizing the second embodiment as “advantageous” does not mean that the first embodiment is not described as an alternative.

Withdrawal of the rejection to claim 14 under 35 U.S.C. §112, first paragraph, is respectfully requested.

Rejections under 35 U.S.C. §112, Second Paragraph:

Claims 12 and 15 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner asserts that the phrase “each corresponding axial plane” in claim 12 has no antecedent basis, and that phrase “at least one of the joints includes a cylindrical bearing” in claim 14 is unclear.

Claim 12 was cancelled in a previous amendment and is not currently pending in the application. Applicants assume that the Examiner meant to reject claim 6 instead of claim 12, since the phrase objected to by the Examiner is found in claim 6. Applicants have amended claims 1 and 6. Applicants respectfully submit that proper antecedent basis for “each of the respective axial planes” is properly provided in claim 1.

Applicants have also amended claim 15 to recite that the “bearing of at least one of the joints is cylindrical” so as to clarify that the cylindrical bearing is the same as the bearing recited in claim 1.

Withdrawal of the rejections under 35 U.S.C. §112 is respectfully requested.

Rejections under 35 U.S.C. §102(b)

Claims 1 to 7, 11 and 15 to 17 were rejected under 35 U.S.C. §102(b) as being anticipated by EP 0 592 297 to Gerard (“Gerard”).

Independent claim 1 of the present invention recites a coupling for connecting a driving machine part and a driven machine part. The coupling of claim 1 includes, among other features:

a first articulated lever coupling . . . having at least three identical articulated levers, each lever having two lever ends and an elastic joint defining a joint axis disposed at each lever end, each elastic joint including *a bearing having an elastomer layer surrounding the respective joint axis*.

Applicants have amended claim 1 to clarify that the elastomeric layer of the bearing surrounds the joint axis. Clear support for amended claim 1 is found in the original application, for example in Fig. 1, which shows a cross-section of articulated levers 9, having an elastic joint 10 defining a joint axis 21 at each of the two lever ends. Each elastic joint 10 includes a bearing 17 having an elastomer layer 20 surrounding the joint axis 21. See also paragraphs [0006], [0009], and [0027].

Applicants respectfully submit that Gerard does not show any joint that includes a bearing having an elastomeric layer, and certainly does not describe an elastomer layer surrounding a joint axis.

Gerard describes a rotational coupling device for two independent, aligned transmission shafts. Gerard describes connecting members 30 that each include two straps 31, 35 arranged opposite of another at free ends of the straps and each being mounted to be freely rotatable on one stud 14, 24, of the pairs of adjacent studs on each connecting flange 10, 20. See Gerard claim 4. The straps 31, 35 define a housing therebetween for deformable elements 40. See claim 4, and 9 and 10. Gerard describes that the deformable elements may be formed by two coaxial pads 41, and 42, and that these pads may be cylindrical in shape and made of elastomer. See claims 6 and 8 and Figs. 9 and 10.

However, Gerard does not describe any bearing having an elastomer layer at each end of the connecting members 30. Instead, Gerard describes cylindrical elastomeric pads in the middle portion of the connecting elements for allowing some flexibility of the two ends of the connecting element 30 relative to one another as best seen in Fig. 12. To the extent that straps 31, 35 can be considered bearings, there is no description that they include an elastomer layer surrounding studs 24 and 14 (or surrounding any joint axis defined by joints at the ends of the connecting members 30). The schematic depiction of Fig. 11 also does not show any elastomer layer surrounding any joint axes.

Withdrawal of the rejections under 35 U.S.C. § 102(b) is respectfully requested.

Rejections under 35 U.S.C. §103(a):

Claim 14 was rejected under 35 U.S.C. §103(a) as being unpatentable over Gerard.

As discussed above, Gerard does not describe at least the feature recited in claim 1 of a

bearing having an elastomer layer surrounding a joint axis. Applicants respectfully submit that there is furthermore no suggestion in Gerard of providing individual bearings at the each end of the connecting elements 30 which have an elastomer layer surrounding the axis.

The individual bearings at each end of the connecting elements having an elastomeric layer surrounding the joint axis provides certain advantages not present in the Gerard coupling. As explained in paragraph [0006] of the application:

This configuration of the joints results in deformation of the elastomer bearing which is attributable primarily to torsion. This homogeneous deformation is tolerated better by the bearing. Only a very small portion of the deflection is cardanic. The bearing elements used may be optimized better to radial loads.

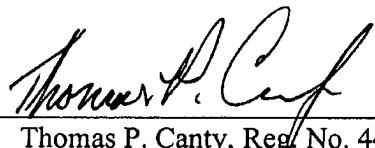
Withdrawal of the rejection under 35 U.S.C. §103(a) to claim 14 is respectfully requested.

CONCLUSION

It is respectfully submitted that the application is now in condition for allowance.

Respectfully submitted,

DAVIDSON, DAVIDSON & KAPPEL, LLC

By: 

Thomas P. Canty, Reg. No. 44,586

Davidson, Davidson & Kappel, LLC
485 Seventh Avenue - 14th Floor
New York, New York 10018
(212) 736-1940